

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously presented) In a combination for providing signals at different positions in a patient,

a vest constructed to be worn by the patient, regardless of the patient's size

a plurality of electrodes,

a plurality of positions in the vest for receiving the electrodes, individual positions in the plurality of positions being disposed to receive the electrodes for signals indicating the characteristics of the patient's heart when the patient has a small, medium or large size, the positions of the electrodes for the patient of small, medium and large size being individual relative to the positions of the electrodes for patient of the other ones of the small, medium and large sizes, and

amplifiers responsive to the signals on the electrodes at the individual positions in the vest for providing signals indicating the characteristics of the patient's heart at the different positions for the patient when the patient has a small, medium or large size.

2. (Previously presented) In a combination as set forth in claim 1 wherein

the electrodes are positioned at the individual positions in the vest to measure V_1 - V_6 positions in the patient when the patient has a small, medium or large size and wherein

the amplifiers provide the signals at the individual ones of the V_1 - V_6 positions of the patient when the patient has the small, medium or large size.

3. (Previously presented) In a combination as set forth in claim 1 wherein

the electrodes measure individual ones of the V_1 - V_6 positions in the patient when the patient has the small, medium or large size, and wherein

the amplifiers provide the signals indicating the characteristics of the patient at the individual ones of the V_1 - V_6 positions for the patient when the patient has the small, medium or large size and wherein

the electrodes are disposed on the vest in rows and columns and wherein

each of the electrodes in the vest is disposed in the vest in individual ones of the columns relative to the other electrodes in the vest when the patient has an individual one of the small, medium and large sizes

4. (Original) In a combination as set forth in claim 1 wherein

the positions in the vest are disposed in rows and columns and wherein

each of the amplifiers provides indications of the heart in the individual ones of the rows at an individual one of the columns when the patient has a small, medium or large size.

5. (Previously presented) In a combination as set forth in claim 1 wherein

the electrodes at the individual positions are provided with pressures against the body of the patient of at least a particular value to facilitate a production by the patient of signals indicating the characteristics of the patient at the individual positions when the patient has the small, medium or large size.

6. (Previously presented) In a combination as set forth in claim 2 wherein

the electrodes measure individual ones of the V_1 - V_6 positions ~~in the heart~~ for the patient when the patient has the small, medium or large size and wherein

the amplifiers provide signals indicating the characteristics of the heart at individual ones of the V_1 - V_6 positions for the patient when the patient has the small, medium or large size and wherein

the positions in the vest are disposed in rows and columns and wherein

each of the amplifiers provides indications of the heart in individual ones of the rows at an individual one of the columns when the patient has a small, medium or large size and wherein

the electrodes at the individual positions are provided with pressures against the body of the patient of at least a particular value to facilitate the production by the patient of signals indicating the characteristics of the patient's heart at the individual positions.

7. (Previously presented) In combination for providing signal indications at individual positions in a patient,

a vest constructed to be disposed on a patient's body for ambulatory movement of the patient while measurements are being made of the characteristics of the patient,

a plurality of electrodes each disposed on the vest for providing a measurement at an individual one of the positions in the patient of the characteristics of the patient at that position,

each position in the plurality being provided to receive an individual one of the electrodes regardless of the size of the patient, and

a plurality of amplifiers, each adapted to be connected to an individual one of the electrodes to receive signals from the individual one of the electrodes regardless of the size of the patient.

8. (Original) In a combination as set forth in claim 7 including

an electrode assembly disposed on the vest and including a plurality of electrodes each connected to provide the signals to an individual one of the amplifiers.

9. (Previously presented) In a combination as set forth in claim 7

wherein

the vest is provided with rows and columns of positions and wherein

the electrodes are disposed in individual ones of the positions depending upon whether the patient has a small, medium or large size and wherein

each amplifier is connected to an individual one of the electrodes, when the patient has a small, medium or large size, to provide signals representing an individual position in the patient's heart regardless of the size of the patient.

10. (Original) In a combination as set forth in claim 7 wherein

the positions on the vest are disposed in rows and columns and wherein

each amplifier provides signals in an individual one of the columns when the patient has a small, medium or large size and wherein

each amplifier provides an indication of the signal on an individual one of V₁-V₆ positions in the patient when the patient has a small, medium or large size.

11. (Previously presented) In a combination as set forth in claim 7

wherein

the electrodes for the patient, when the patient has a small, medium or large size, size are positioned on the vest so that at most only one electrode is disposed in each column of the positions on the vest regardless of the size of the patient for an individual one of small, medium and large size in the patient.

12. (Original) In a combination as set forth in claim 7 wherein

each electrode is disposed on the vest with a pressure against the patient at least equal to a particular value.

13. (Previously presented) In a combination as set forth in claim 8 wherein

the electrodes are disposed in rows and columns and wherein

each amplifier is adapted to be connected to an individual one of the electrodes, when the patient has a small, medium or large size, to provide signals representing an individual one of the positions in the patient regardless of the size of the patient and wherein

each amplifier provides signals in an individual one of the columns when the patient has an individual one of the small, medium or large size and wherein

each amplifier provides an indication of an individual one of V_1 - V_6 positions in the patient for an individual one of a small, medium and large sizes and wherein

the electrodes for the patient, when the patient has an individual one of the small, medium or large size, are positioned on the vest so that at most only one electrode is disposed in each column of the positions on the vest for the individual one of the small, medium and large sizes regardless of the patient's size and wherein

each electrode is disposed on the vest against the patient with at least a particular pressure.

14. (Previously presented) In combination for providing signals at different positions in a patient,

a vest having a plurality of positions for determining the characteristics of the patient regardless of the size of the patient,

a plurality of electrodes adapted to be connected to the vest at individual ones of the positions in the vest, and

an inflatable member for inflating the vest with the vest disposed on the patient to press the electrodes against the patient for enhancing the passage of the signals from the patient's ~~heart~~ to the electrodes.

15. (Original) In a combination as set forth in claim 14,

a member carried by the patient and having a plurality of terminals for receiving the signals from the different electrodes.

16. (Previously presented) In a combination as set forth in claim 12 wherein

amplifiers are disposed on the member and are connected to the electrodes and wherein

a member is attached to the vest to provide for the production of signals from the patient at the electrodes, while the patient is ambulatory, without affecting the characteristics of the signals from the patient and wherein

the amplifiers are constructed to amplify the signals from the electrodes without affecting the characteristics of the signals even while the patient is ambulatory.

17. (Previously presented) In a combination as set forth in claim 14 wherein

the vest has a plurality of positions, dependent upon the size of the patient, for receiving electrodes to measure the characteristics of the patient at positions V_1 - V_6 in the patient.

18. (Previously presented) In a combination as set forth in claim 15 wherein

the member is attached to the vest to provide for the production of signals at the electrodes, while the patient is ambulatory, without affecting the characteristics of the signals produced at the electrodes and wherein

the vest has a plurality of positions, dependent upon the size of the patient, for receiving electrodes to measure the characteristics of the patient at positions V_1 - V_6 on the patient.

19. (Previously presented) In a combination for providing signals at different positions in a patient,

a vest constructed to be worn by the patient when the patient has a small, medium or large size,

a plurality of positions on the vest, the positions being disposed in rows and columns,

electrodes disposed in the vest at particular positions in the vest, the particular positions being dependent upon the size of the patient wearing the vest,

there being at most only one electrode in each column in the vest for each size of the patient.

20. (Previously presented) In a combination as set forth in claim 19,

a plurality of amplifiers each responsive to the signals from the electrode in an individual one of the columns, different from the other columns in which the electrodes are disposed, for receiving the signals in the patient.

21. (Previously presented) In a combination as set forth in claim 20 wherein

the amplifiers are adapted to be attached to the vest in a closely coupled relationship to the vest to be carried by the patient in an ambulatory relationship of the patient.

22. (Previously presented) In a combination as set forth in claim 20,
wherein

the amplifiers are constructed, and are adapted to be connected to the electrodes, to provide signals of stable characteristics from the electrodes regardless of the size of the patient and even while the patient is ambulatory.

23. (Original) In a combination as set forth in claim 20 wherein

the signals from the amplifiers are independent of any noise that may result from the ambulatory nature of the patient.

24. (Original) In a combination as set forth in claim 22 wherein

the signals from the amplifiers are independent of any noise that may result from the ambulatory nature of the patient.

25. (Original) In a combination as set forth in claim 19,

an inflator for inflating the vest against the patient's body for providing an adjustable pressure of the electrodes against the patient's body.

26. (Original) In a combination as set forth in claim 19,

an inflator for inflating the vest against the patient's body to provide at least a particular pressure of each electrode against the patient's body.

27. (Previously presented) In a combination as set forth in claim 19
wherein

each of the electrodes is individually inflatable against the patient's body to provide at least a particular pressure between the electrode and the patient's body.

28. (Previously presented) In a combination as set forth in claim 23
wherein

each of the electrodes is individually inflatable against the patient's body to provide, between the electrode and the patient's body, a pressure which is at least a particular value.

29. (Previously presented) In a combination as set forth in claim 23

a plurality of amplifiers each responsive to the signals from an individual one of the electrodes in an individual one of the columns, regardless of the patient's size, for amplifying the signals in the electrode.

30. (Previously presented) In a combination as set forth in claim 24

a plurality of amplifiers each responsive to the signals from an individual one of the electrodes in an individual one of the columns, regardless of the patient's size, for amplifying the signals in the electrode.

31. (Previously presented) In a combination as set forth in claim 20,

each of the electrodes is individually inflatable against the patient's body to provide, between the electrode and the patient's body, a pressure which at least equals a particular value.

32. (Previously presented) In a combination for providing signals at different positions in a patient,

a vest constructed to be worn by the patient regardless of the size of the patient,

a plurality of positions disposed on the vest in rows and columns in an upper right portion of the vest and in positions in a lower left portion of the vest, and

electrodes disposed on the vest in positions in the upper right portion of the vest and in positions in the lower left portion of the vest, the position of the electrodes in the upper right portion of the vest and the lower left portion of the vest being dependent upon the size of the patient.

33. (Previously presented) In a combination as set forth in claim 32 wherein

V_1 and V_2 electrodes are disposed in the upper right portion of the vest regardless of the size of the patient and wherein

the V_1 and V_2 electrodes in the upper right portion of the vest are symmetrically disposed relative to the patient's sternum regardless of the size of the patient and wherein

V_4 and V_5 and V_5 electrodes are disposed in positions in the lower left portion of the vest regardless of the size of the patient.

34. (Previously presented) In a combination as set forth in claim 32 wherein

V_4 , V_5 and V_6 electrodes are disposed in spaced positions in an individual one of the rows in the upper right portion of the vest regardless of the size of the patient.

the V_4 , V_5 and V_6 electrodes are disposed in individual columns of the vest regardless of the size of the patient.

35. (Previously presented) In a combination as set forth in claim 33 wherein

a V_3 electrode is disposed in either the upper right portion of the vest or the lower left portion of the vest dependent upon the size of the patient.

36. (Previously presented) In a combination as set forth in claim 35 wherein

V_1 and V_2 electrodes are in positions in the upper right portion of the vest in the same horizontal row on opposite sides of the sternum in a symmetrical relationship with the sternum regardless of the size of the patient and wherein

V₄, V₅ and V₆ electrodes are in positions in ~~on~~ the lower left portion of the vest in the same horizontal row regardless of the size of the patient.

37. (Previously presented) In a combination as set forth in claim 32 wherein

there are two (2) electrodes in the positions in the upper right portion of the vest and these electrodes are in the same row in a symmetrical relationship with the sternum of the patient regardless of the size of the patient and wherein

a third electrode is in either the upper right portion of the vest or the lower left portion of the vest in a row and column different from the rows and columns of the first two electrodes, the positioning of the third electrode being dependent upon the size of the patient and wherein

there are three additional electrodes in position in the lower left portion of the vest and all of these are in the same horizontal row but in a row different from the rows locating the first, second and third electrodes and in columns different from the ~~other~~ first, second and third electrodes and from one another, the positioning of the three electrodes additional being dependent upon the size of the patient.

38. (Previously presented) In a combination as set forth in claim 32 wherein

positions are provided in the upper right portion of the vest and in the lower left portion of the vest to provide for the disposition of electrodes in particular ones of the positions for patients of small, medium and large sizes and wherein

each of the electrodes is in a different column than the other electrodes for each patient regardless of the size of the patient.

39. (Previously presented) In a combination as set forth in claim 38 wherein

the upper right portion of the vest overlaps the lower left portion of the vest and wherein

at least two (2) electrodes are disposed in positions in the upper right portion of the vest regardless of the size of the patient and wherein

three electrodes are disposed in positions in the lower left portion of the vest regardless of the size of the patient and wherein

a sixth electrode is disposed in either the upper right portion of the vest or the lower left portion of the vest dependent upon the size of the patient.

40. (Previously presented) In a combination for providing signals at different positions in a patient's heart,

a vest constructed to be worn by the patient regardless of whether the patient is a small, medium or large size,

a first plurality of positions in the upper right portion of the vest and a second plurality of positions in the lower left portion of the vest,

the positions in the upper right portion and the lower left portion of the vest defining rows and columns, and

electrodes disposed in particular ones of the positions in the upper right ~~left~~ portion and the lower left portion of the vest for providing signals indicative of the characteristics of the patient's heart regardless of the size of the patient.

each of the electrodes for patients of individual size being disposed on columns different from the other electrodes for the patient of the individual size.

41. (Previously presented) In a combination as set forth in claim 40,

the electrodes being disposed relative to the vest operative to produce signals indicative of V_1 - V_6 positions in the patient regardless of the size of the patient,

the electrodes being disposed in the vest is to monitor the heart beat of the patient of small, medium and large sizes.

42. (Previously presented) In a combination as set forth in claim 40,

the first electrode being disposed in the front of the vest and

transfer a third plurality of positions in the upper right portion of the vest being disposed in a common low dependent upon the size of the patient and the second plurality of positions in the lower left portion of the vest being disposed in a common row dependent upon the size of the patient, and the third and fourth positions being disposed in the rear of the vest,

second electrodes disposed in particular ones of the third and fourth positions for providing signals indicative of the characteristics of the heart at these positions regardless of the size of the patient.

43. (Previously presented) In a combination as set forth in claim 42,

the second electrodes being disposed relative to the patient and being operative to produce signals indicative of relatively rare heart problems in comparison to the heart problems indicated by the signals from the first electrodes.

44. (Previously presented) In a combination for providing signals at different positions in a patient, the patient having an individual one of a small, medium and large size,

a vest constructed to be worn by the patient regardless of the size of the patient,

a plurality of positions in the vest,

a plurality of electrodes each disposed in an individual one of the plurality of positions and operative to provide signals indicative of the characteristics of the heart at this position for an individual one of the sizes of the patient, and

a plurality of operational amplifiers each connected to an individual one of the electrodes to amplify the signals from the individual one of the electrodes, the amplifiers being supported by the vest to facilitate ambulatory movement of the patient with the vest, and

each of the electrodes for the patient regardless of the size of the patient being disposed in a column different from the columns for disposing the other electrodes for the patient.

45. (Previously presented) In a combination as set forth in claim 44,

the amplifiers being constructed to amplify the signals, while substantially eliminating noise in the signals, regardless of the size of the patient during ambulatory movements of the patient with the vest disposed on the patient.

46. (Previously presented) In a combination as set forth in claim 44

wherein

electrodes disposed in first positions in the vest provide signals indicative of relatively common problems in the patient's heart and electrodes disposed in second positions in the vest provide signals indicative of relatively rare problems in the patient's heart, the first positions in the vest being disposed in the front of the patient and the second positions being disposed in back of the patient.

47. (Previously presented) In a combination as set forth in claim 46

wherein

the amplifiers are constructed to provide signals indicative of the characteristics of the heart as defined by the positions of the electrodes while substantially eliminating ~~without any~~ noise resulting from any ambulatory movements of the patient regardless of the size of the patient.

48. (Previously presented) In a combination as set forth in claim 44

wherein

electrodes disposed at first positions in the vest provide signals indicative of relatively common problems in the patient's heart and electrodes disposed at second positions in the vest provide signals indicative of relatively rare problems in the patient's heart and wherein

the amplifiers are constructed to provide signals indicative of the characteristics of the heart defined by at the positions of the electrodes without any noise resulting from any ambulatory movements of the patient regardless of the size of the patient.

49. (Previously presented) In a combination for providing signals at different positions in a patient's heart,

a vest constructed to be worn by the patient regardless of the size of the patient,

a plurality of positions in the vest,

a plurality of electrodes each disposed in an individual one of the positions and operative to provide signals indicative of the characteristics of the heart at this-at the individual one of the positions, and

a plurality of amplifiers each adapted to be connected to an individual one of the electrodes to amplify the signals from the individual one of the electrodes, the amplifiers being constructed to provide signals indicative of the characteristics of the heart at dependent upon the positions of the electrodes while substantially eliminating noise resulting from ambulatory movements of the patient.

50. (Previously presented) In a combination as set forth in claim 49,

the electrodes being disposed in the vest at individual positions in the vest for patients of small, medium and large sizes.

51. (Previously presented) In a combination as set forth in claim 49,

each of the electrodes being adapted to be disposed in a coupled relationship with the patient's skin to apply pressure against the patient's skin with a value greater than a particular value for patients of small, medium and large size.

52. (Previously presented) In a combination as set forth in claim 50,

each of the electrodes being adapted to be disposed in a coupled relationship to the patient's skin to apply a pressure to the patient's skin at a value for patients of small, medium and large sizes greater than a particular value for producing signals indicative of the patient's heart at the position of the electrode.

53. (Previously presented) In a combination as set forth in claim 49,

the electrodes being adapted to be disposed in the vest at individual positions in the vest for patients of small, medium and large sizes to obtain signals indicative of the characteristics of the heart of the patients of small, medium or large sizes.

~~53. (Previously presented) In a combination as set forth in claim 49,~~

~~the electrodes being adapted to be disposed in the vest at individual positions in the vest for patients of small, medium and large sizes to obtain signals indicative of the characteristics of the heart of the patients of small, medium or large sizes.~~

54. (Previously presented) In a combination as set forth in claim 50,

each of the electrodes being adapted to be disposed in a coupled relationship with the patient's skin to apply a pressure against the patient's skin of at least a particular value,

the electrodes being disposed in the vest at individual positions in the vest for patients of small, medium and large sizes to obtain signals indicative of the characteristics of the patients of small, medium and large sizes.

78. (Previously presented) In a combination for providing signals at different positions on a patient's heart

a vest constructed to be worn by the patient regardless of whether the patient is of small, medium, or large size.

a portion of the vest being provided with a plurality of rows and columns,

a plurality of electrodes including V_1 and V_2 electrodes disposed in a front portion of the vest,

the V_1 and V_2 electrodes being disposed in a common row individual to the patient being of small, medium and large size,

the column's positions of the V_1 and V_2 electrodes in the row being individual to the small, medium or large size of the patient.

79. (Previously presented) In a combination as set forth in claim 79,

the V_1 and V_2 electrodes being positioned on opposite sides of the patient's sternum regardless of the size of the patient.

80. (Previously presented) In a combination as set forth in claim 78,

the column or distance between the electrodes in the row common to the electrodes being designated upon the size of the patient.

81. (Previously presented) In a combination as set forth in claim 79,

the column or distance between the V_1 and V_2 electrodes in the row common to the electrodes being dependent upon the size of the patient.

82. (Previously presented) In a combination as set forth in claim 78,

the column or distance between the V_1 and V_2 electrodes being greater for patients of large size than for patients of small and medium sizes.

83. (Previously presented) In a combination as set forth in claim 78,
the first portion of the vest extending on opposite sides of the patient's sternum and having five (5) columns and three (3) rows.

84. (Previously presented) In a combination as set forth in claim 79,
the column or distance between the V_1 and V_2 electrodes in the row common to the electrodes being dependent upon the size of the patient and

the column or distance between the V_1 and V_2 electrodes being greater for patients of large size than for patients of small and medium sizes.

85. (Previously presented) In a combination as set forth in claim 78,
the column or distance between the V_1 and V_2 electrodes being greater for patients of large size than for patients of small and medium sizes.

86. (Previously presented) In a combination for providing signals at different positions in a patient's heart,

a vest constructed to be worn by the patient regardless of whether the patient is of a small, medium or large size,

a portion of the vest being provided with a plurality of rows and columns,

a plurality of electrodes including V_4 , V_5 and V_6 electrodes being disposed in the vest for patients of small, medium and large sizes,

the V_4 , V_5 and V_6 electrodes being disposed in a common row which is dependent upon the size of the patient.

87. (Previously presented) In a combination as set forth in claim 86,

the column or distance between the V₄, V₅ and V₆ electrodes being dependent upon the size of the patient.

88. (Previously presented) In a combination as set forth in claim 86, the portion of the vest having three (3) rows and eight (8) columns.

89. (Previously presented) In a combination as set forth in claim 86, the column or distance between the V₁ and V₂ electrodes being greater for patients of large size than for patients of small and medium sizes.